



US Army Corps  
of Engineers®

# Engineer Update

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After flooding broke through the levees in Roseau, Minn., the state requested help from St. Paul District. Within hours, the district hired contractors to build emergency levees through the center of town. The levees allowed the standing water to be pumped out. (Photo courtesy of St. Paul District)

## St. Paul District battles N.W. Minnesota floods

By Shannon Bauer  
St. Paul District

While drought and fires ravaged much of the rest of the country this summer, Minnesotans spent most of their time slinging sand and fighting floods.

From June 11 to July 11, heavy downpours on already saturated ground caused severe flooding in much of Northwestern Minnesota. St. Paul District activated its emergency operations center and initiated flood response efforts at the request of the governor of Minnesota.

"Flooding in June is an unusual event in Minnesota, especially flooding of this magnitude," said Dave Christenson, chief of the district's Readiness Branch. "Normally, flooding happens here earlier in the spring, when the snow melts.

"What was really unusual, though, were multiple events resulting in the district activating emergency response teams on a continual basis for the past few months, especially considering this year was a mild spring for us," Christenson added. "The entire district supported the flood fight, either directly or indirectly, and they did it very effectively."

In all, more than 870,000 sandbags were provided throughout the state, and about \$1.4 million was spent on direct assistance.

### Ada

Ada, Minn., which sits on the Wild Rice River, flooded not once but twice, cresting above flood stage on June 11, and again on June 23.

During the first flood, which became the flood of record for the town at 17.19 feet, the U.S. Army Corps of Engineers provided technical assistance and sandbags in both Ada and Borup, Minn. Water levels had dropped

substantially, but a heavy rainfall two weeks later of up to 10 inches in 12 hours caused an immediate threat of flash flooding, this time with the water expected to crest even higher.

"The initial National Weather Service prediction was for three high feet higher than the flood of record two weeks earlier, and three feet higher than the existing emergency levee already in place there, which would have been very difficult to respond to," said Tim Bertschi, the district's western area flood manager.

A Corps response team was set up around 3 a.m. on June 23, and a contract was in place by 9:30 a.m. By late evening on June 24, the emergency levees were complete. A standby contract was executed and held open until the afternoon of June 25.

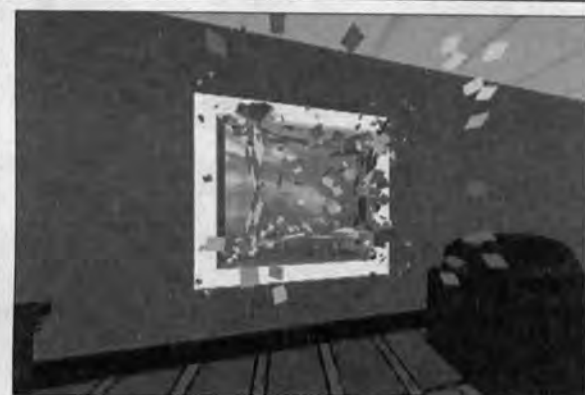
Dick Sundberg, construction representative from the Fargo, N.D., construction office, said he got called around 4 a.m. and met with local officials by 6 a.m. He said, "No one knew exactly what the water levels were going to be, but we knew we needed to move in materials as fast as we could because the roads were going to flood."

Sundberg said he estimated he needed around 14,000 cubic yards of dirt to build the levees, but were able to haul in only 8,000 cubic yards before the roads were submerged. The rest they obtained from the city's fairgrounds, ice skating rink, and alongside its main highway.

"Placing material behind homes and businesses was a difficult task," said Sundberg. "We had city council members going door-to-door, arranging accesses to the levee. The city also provided private citizens as flagmen to facilitate the movement of trucks and equipment."

When the water finally crested at 7 a.m. the next day at about eight inches higher than the previous flood, the

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A computer simulation shows exploding glass flying through a room. (Photo courtesy of ERDC)

## ERDC is Army large lab of year

By Debbie Quimby  
Engineering Research and Development Center

The Army recently selected the Engineer Research and Development Center (ERDC) as its Large Research and Development Organization of the Year for 2002.

The Office of the Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASA(AL&T)) made the announcement on Aug. 28, citing ERDC's development of research products that saved numerous lives at the Pentagon, and its efforts in the war on terrorism by supporting Operation Enduring Freedom in Afghanistan.

The Hon. Claude Bolton, ASA(AL&T) will formally present the award to ERDC leaders at the Army Science Conference in Orlando, Fla., on Dec. 2.

ERDC is the premier research and development facility for the U.S. Army Corps of Engineers, conducting research in both military and civil works mission areas for the Department of Defense and the nation.

In this year's competition, ERDC competed against seven other laboratories in the large category (organizations with more than 600 employees). It was recognized for both technical and management accomplishments.

### Technical accomplishments

In fiscal year 2001, ERDC focused its research on the physics of blast/structure interaction and a physics-based computational model to simulate the interaction of blast waves with complex structures. This model allows engineers to accurately analyze a building's vulnerability to terrorist threats, and provide methods to retrofit buildings to defeat the threat.

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## Insights

# Masks should be only for fun on Halloween

By Col. Lowell Moore  
Chaplain, U. S. Army Corps of Engineers

It is October at last. We now enter that time of the year when many Americans begin a three-month eating binge.

It begins when the children of America dress up in strange garments and go out into the streets on Halloween to harvest the bounty of candy that awaits them in homes all over our country. Then, the adults have the responsibility to eat all the leftover Halloween candy. It has been reported that some parents will even stoop low enough to raid their children's Halloween sacks when they are left unguarded.

This eating continues right through Thanksgiving, Christmas, and New Years. Then the eating is replaced with our New Year's resolutions. At this time, people resolve to get on a diet, and they try to undo the damage caused by three months of feasting. Unfortunately, the resolutions last only four days and are unable to cancel the results of an eating frenzy that lasted three months.

Let's take a look at Halloween, this interesting holiday that gets the eating started.

Kids put on a mask and costume, hide their true self, pretend to be something they are not, and then venture into the night to extort a bounty from the innocent public. Most cities and communities have laws that would prevent such activity, but they all seem willing to ignore the law for one night and let the little monsters terrify the citizens and force them to pay a ransom of goodies to be spared some dreadful consequence.

It would be good if this practice could be limited to children and to just one night a year, but I see grown-ups playing an adult version of Halloween every day. They

put on a front, or a mask, to hide their true self and pretend to be something they are not. Here are some of the favorite "masks" that grown-ups hide behind.

First is the "Superman Mask." This mask is designed make the wearers appear to be strong, powerful, and self-sufficient. It makes them look like they can handle everything all by themselves. They want the world to think they have no weaknesses, and they don't need any help from anyone. They would be embarrassed if anyone were to find that they had an emotional, physical, or spiritual weakness.

Another mask is the "Super Scary Mask." People who wear this mask appear gruff and like to scare other people away. They want others to think they are bad, tough, mean, and not afraid of anything. In truth, they are often afraid to let others get too close because they might learn that there is a soft side hiding under the crusty exterior.

There is another mask and I call it the "Super Saint Mask." People who wear this mask often come from good homes and are active in their church, synagogue, etc. They want everyone to think they are spiritually and emotionally perfect, and they have it all together. They work hard to keep the mask in place and hide any flaw they may have.

While I was attending the Senior Leader's Conference in August, I met a Corps member from Fort Worth District. As we talked, the discussion turned to the wonderful way that Corps family members care for each other, and she told me about a fellow Corps member who lost her husband.

During the grieving process, the Corps member who lost her husband seemed distracted. She was uncharacteristically slow, forgetful, and tardy. I was pleased to hear how the rest of the team willingly picked up the



slack until the grieving member came to grips with her loss and began to function with her previous efficiency.

I asked my new friend from Fort Worth, "Do you think the rest of the team would have been as willing to pick up the slack if they didn't know about the problems the grieving member was going through?" We concluded that if the grieving member had worn a mask and hid the fact that she was going through a difficult time, the rest of the team wouldn't have known how to help, and probably wouldn't have been as willing.

The point being, it is almost impossible to help others when they hide behind their mask, just as it is almost impossible to receive help when we wear our masks. I even wonder if God can help those who hide behind a mask and refuse admit they have a need.

Go ahead and have fun this Halloween. Dress silly, wear your masks, scare your buddies, and get your candy. Then let's take off our masks, and be willing to admit that we are not as strong, tough, or perfect as we would like to be. And let's be willing to help others when we find out that they are as human as we are.

Oh yes! And get a piece of candy for me!  
(The views expressed in this article are those of the author and do not reflect the official policy or position of the U.S. Army Corps of Engineers, the Department of Army, the Department of Defense, or the U.S. government.)

## 249th soldiers at work in 'The Stans'

By Spc. Casandra Brewster

(This article was originally published in the "Belvoir Eagle" at Fort Belvoir, Va. Brewster is the assistant editor of that newspaper.)

The 249th Engineer Battalion (Prime Power) is one of the top on-the-go units in the Army. Some of the individual soldiers push the Army's allowable limits for deployments.

On Sept. 6, nine soldiers of the 249th's Heavy Maintenance Section left the security of Fort Belvoir, Va., and the continental U.S., for Afghanistan. They volunteered to join Operation Enduring Freedom, and join a number of other 249th soldiers already on duty in the region that American troops call "The Stans."

**At war.** "The United States of America is at war," said Lt. Col. Kevin Wilson, the battalion's commander, dur-

ing an Aug. 29 send-off ceremony for the deploying soldiers. "This isn't a war like Vietnam, Korea, World War II, or World War I. This is a war that stretches many years, back to the Crusades. It's embedded with deep hatred.

"This isn't going to be an easy war to fight, and it's going to be global before it's all done," Wilson added. "But the one thing about this is that the Army needs prime power. They're running base camps in very austere environments and they need power."

**'The Stans.'** As of press time, the 249th has 61 soldiers, both active duty and Reserves, deployed in Afghanistan, Uzbekistan, and Kyrgyzstan.

The 249th deployed its first detachment last Nov. 1. Since then, seven detachments have deployed, including the Heavy Maintenance Section soldiers.

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Soldiers of the 249th Engineer Battalion (Prime Power) lay cable at a base in Southwest Asia. (Photo courtesy of the 249th)





## Commentary

# Money is not only way to be rich

By Sunday Pearson  
Sacramento District

My kids always asked me the hard questions. Never once did I hear them ask their Dad any tough questions, always me.

**"Where do babies come from?"** (Naturally, I'd tell them the truth — that the stork brought them wrapped in tiny pink blankets and gently placed them in a nest right outside my hospital window where I effortlessly waited for their arrival.)

**"Hey Mom, do worms ever get the mumps?"** (Scientists have debated that for years, sweetheart, so when you grow up and become a famous biologist, perhaps you will find the answer to that age-old question, win the Nobel Prize, and buy me a Mercedes.)

**"Why do we have a belly button?"** (I had an answer, but it escapes me at the moment.)

So when my youngest daughter one day asked, "Are we rich?", it was just another in a series of questions I attempted to answer.

The comical reality to her innocent question was that when I grew up, I never had to ask my parents if we were rich. It was pretty common knowledge throughout the universe that we were *not*. Everything I wore either came from another human being who had broken it in for me, or it came from the Sears catalogue, best known for its lawnmowers and tools. The world had yet to experience the "softer side."

My mom purchased me one pair of shoes a year, always at the beginning of school, always white and always too large so that my feet had room to grow. To this day, I do not own a pair of white shoes!

Ordering from a catalogue meant that mom had to measure me. By her own admission, she was lousy at math, so the measurements were always off. Everything I wore hung low and where it shouldn't. Sleeves were too long, the waist to my dresses sat on my hips, and my coat



invariably brushed the ground.

Well, you get the picture. We were by no stretch of the imagination well off.

To a child, volume is the measurement of wealth, and so it was with my own children. When they were small (and I was a stay-at-home mom) I shopped at the local thrift stores for most of their clothing. Making my purchases there allowed for great quantities. It made little difference to them where the clothing came from, just that they had a lot! They never had one sweat suit but five; never just two sets of pajamas but eight. And toys! They had a ton!

Since volume equated to prosperity, they must have thought we were *very* rich!

But as they grew up, volume slowly became less important. We evolved to brand names — Doc Martens, Gap, Abercrombie and Fitch, bebe, etc. The question, "Are we rich?" was more complicated. As we entered

this stage of "poordom," my days at the thrift store were numbered.

To further emphasize that we were now embarrassingly poor, we drove a run-down 1980 Volvo that the girls *abhorred*! At their request, we often dropped them off one block from school so that they wouldn't be seen coming out of that rusty tank-on-wheels.

The only thing that saved us during this phase of child-rearing was the money tree that my husband planted in the back yard. Thank goodness he had the foresight to do that! I could often be heard tenderly directing our teenagers into the backyard where there was an abundance of money growing just within reach.

There's no question that our girls believed we were *very* poor!

We somehow survived the "poor" years. We enjoyed fishing and camping with other "poor" families who have become life-long friends. We had plenty to eat (all of it from scratch). We enjoyed the freedom to worship and the freedom of speech. We had our health and we had one-another.

We have collectively discovered that Madison Avenue is *wrong*! No amount of "I can't live without it" purchases will provide personal fulfillment or the necessary strength of character to make it in this world. Family relationships nurtured by mutual respect and love are by far a more valuable commodity to be cherished.

Truth is, Bill Gates has *nothing* on us! We are rich, beyond our wildest imaginations!

Oh, I just remembered my answer to why we have a belly button...

We have a belly button because that's where God poked us with a stick to make sure that we were done...

Then He handed us over to the stork.

(The views in this article are those of the author and do not reflect the official policy or position of the U.S. Army Corps of Engineers, the Department of the Army, the Department of Defense, or the U.S. government.)

## 249th

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The 249th is the only unit assigned directly to the U.S. Army Corps of Engineers. The battalion's mission is to provide electric power up to megawatt levels to support federal personnel in any contingency from natural disasters to war.

**Very complimentary.** Wilson explained to fellow 249th soldiers, families, and friends gathered at the ceremony that in this particular mission the Heavy Maintenance Section will also help support the U.S. Air Force in its Afghanistan area of operation.

"This is very complimentary of the 249th," Wilson said. "I've been in the Army for 19 years, and I've never had the Air Force ask me as an engineer for power. So, this is remarkable."

**High tempo.** Wilson applauded the soldiers and their families for supporting the mission, as well as accepting the battalion's high operations tempo.

"In a regular infantry battalion, combat-heavy engineer battalion, a lot of other battalions, if you work them real hard and drive them into the ground you can just go back to other Reserve, National Guard, or active duty battalions and get a brand new group to work," Wilson said.

**Pacing.** "But as you all know, there's just *one* prime power battalion," Wilson added. "We're in this fight for the long haul. We're going to take care of the soldiers; we've got to pace ourselves."

Wilson said that the soldiers would be gone six months to a year. "We'll push on the side of six months," he told the audience of hopeful family members.



Despite hard work and deployment far from home, morale remains high among soldiers in the 249th. (Photo courtesy of the 249th)



"Road signs" are traditional among U.S. units deployed overseas. (Photo courtesy of the 249th)

## Letters to the Editor



### Oh, that Georgia!

Great article on the hangar project. (Aug. 2002 "Engineer Update," page 5.)

You should note that Georgia received its independence from Russia in 1991. As a country that has spent most of its recent history (400 years or so) occupied by a foreign power, I bet they wouldn't want people to infer that they were still part of Russia, as the parenthetical references in your article imply.

Lt. Col. Edward Kertis  
Walla Walla District Engineer

That was my mistake, not the author's (Grant Sattler).

I wanted to make sure that our readers understood we were referring to Georgia (Black Sea and Greater Caucasus Mountains), not Georgia (Goooo Dawgs!). — Editor





Lt. Col. Ray Mitchell (foreground) and Lt. Col. Lyn Padgett hike through the Dominican jungle to the landslide. (Photo courtesy of South Atlantic Division)



The impoundment at Matthieu, caused by a landslide, is increasing in size and depth. (Photo courtesy of South Atlantic Division)

# Tele-engineering gets civil works test

By Rob Holland  
South Atlantic Division

In mid-June, a group of engineers from U.S. Army Southern Command (SOUTHCOM) and South Atlantic Division (SAD) gave tele-engineering its first test in a *civil works* environment. At SOUTHCOM's request, the team took a tele-engineering kit to a remote part of the island of Dominica in the West Indies to evaluate a large landslide that had blocked a tributary of a major river.

The tele-engineering unit allowed them to consult from the site with a team of subject matter experts in Mobile District, and formulate a plan for a possible project under SOUTHCOM's Humanitarian Assistance Program.

"This exercise was designed to test the current system in a real-world mission and evaluate what worked and what didn't," said Lt. Col. Mario Trevino, SOUTHCOM's mission team leader. "The difference between this test and previous missions was that this was a *civil engineering* problem rather than a military operational mission. We were working in a civilian environment on an emergency operations issue."

Trevino partners on the trip were Lt. Col. Lyn Padgett and Harry Turner representing SOUTHCOM, and Lt. Col. Ray Mitchell, on active duty in SAD.

The landslide, on a nearly inaccessible ridge overlooking the Layou River, took place in 1997, and caused a large amount of earth to be deposited in the river and one of its tributaries, the Matthieu.

**Landslide damage.** Both rivers were completely blocked, but the main river recut a channel through the slide and continued flowing. The Matthieu, however, was dammed by the slide, which has impounded an increasingly wide and deep reservoir for several years. Dominican officials, fearing the impoundment would eventually breach its natural dam and flood downstream areas, requested an engineering evaluation. Due to its remote location, the situation seemed right for a test of prototype tele-engineering equipment.

"Because this was not a classified mission, we were able to leave the secure module of the tele-engineering deployable kit behind," said Trevino. "Even without it, though, the kit included several pieces of luggage. We traveled by commercial air, and one person traveling alone might have difficulties with baggage restrictions, so we'd like to see future kits reduced to no more than two pieces of luggage."

Designers are already working on a smaller version of the kit. The team discovered another limitation in the system's need for a vehicle battery as a power source.



The team transmitted from a remote area of Dominica to Mobile District. (Photo courtesy of South Atlantic District)

"The site of the landslide was so remote that it wasn't accessible by any sort of vehicle," Trevino said. "We had to hike about an hour into the jungle to get close enough to evaluate it, but we couldn't broadcast directly from there."

Instead, the team used a camcorder that is part of the kit to take video and stills of the landslide, the river, and the impounded lake.

"It was pretty amazing, standing at the bottom and looking up at this wedge" of dirt and rock that formed the natural dam, Trevino said. They measured and photographed the blockage, which was 71 meters high and 40 meters wide at the base, and took motion pictures of the flow of the river.

"Since land-based vehicles couldn't get in, the Mobile District team wanted to know about the river flow to evaluate if heavy equipment could be brought in by barge," said Mitchell. "Unfortunately, the river is too shallow."

**Coordination.** After finishing the reconnaissance, the team hiked back out to their vehicle and hooked up to broadcast back to Mobile District where team members Robert Chamlee, a geotechnical engineer, and Maurice James, a hydraulic design engineer, waited.

"Coordination is very important," Trevino pointed out. "We made careful arrangements before leaving the U.S. as to the time for the broadcast. You must have the right people on both ends."

The team sent the digital photo and video files they created to Mobile District so that Chamlee and James could evaluate them and decide what additional information they needed.

"The original plan was to send these files to the district before the live transmission, but we encountered diffi-

culties with the file transfer," Trevino said. "Once online, we received instructions on how to connect the camcorder to the system for a live feed of the video."

The communications link was accomplished by the Tele-Engineering Operations Center at the Waterways Experiment Station in Vicksburg, Miss. The pictures and descriptions from the team on the ground gave the experts back in Mobile District a good sense of the problem and of local conditions. They asked the onsite team to return to the riverbank for more photos, which they did the following morning before returning to the U.S.

"All in all, the mission went smoothly and the equipment worked well," said Padgett. "This was the first time SOUTHCOM has seen this unit demonstrated, and we were impressed." Padgett said she had expected the deployable kit to be a bit more portable. "I had visions of something I could clip to my helmet and put in my pack," she said.

Back in Mobile District, the district team took the information gathered through tele-engineering and developed a plan to deal with the situation.

**Alternatives.** "It's a delicate problem," Trevino pointed out. "The terrain is too difficult for access by heavy equipment, but the blockage is too large and possibly too risky to be handled by a team of laborers."

Mobile District's plan included developing a warning system for downstream residents, triggered by a device that monitors the water level in the impoundment. Other suggestions included an analysis of the materials in the landslide and its stability, a controlled draining of the reservoir and removal of the blockage, or building an upstream dam to provide better flow control.

Any of these alternatives depend on cost and the desires of the Dominican government.

**Lessons.** As for the field test of the tele-engineering capability, the teams learned several things important to future successes.

"Basically, the system needs to be refined to be both smaller and simpler," Trevino said. "Each generation of the technology reduces the size of the equipment, so we expect this will be accomplished. In addition, the set-up and interface of the various components needs simplification. There were too many cords and connectors."

Other improvements would include better quality microphones and hands-free headsets to make it easier to use in the field.

"Overall these were small problems," Trevino said. "The transmission from the field went off flawlessly, and the system was flexible enough for us to adapt to conditions on the site."



# District manages large logging program

Article by Mindy Anderson  
Photos by Jonas Jordan  
Savannah District

The U.S. Army Forestry Program (USAFP) was established in 1960 due to widespread lack of forest management on land owned by military services. It enhances military readiness, conserves natural resources, protects endangered species, and even raises money for local governments.

As part of Savannah District's Real Estate Division's Timber Harvesting Program, counties are entitled to proceeds from timber sales on military installations. The USAFP generates roughly \$17 million annually. Savannah District has the largest District Forestry Program in the U.S. Army Corps of Engineers, accounting for 42 percent of USAFP's overall gross profits.

"Revenue to the Army Forestry Program generated by Savannah District has ranged between \$5.4 million and \$8.6 million annually for the last five years, making the average annual revenue produced by the district right at \$7 million," said Warner Spence, chief of the district's Forest Resources Section.

USAFP costs are paid by revenue from the sale of forest products and generally do not rely on tax dollars for funding.

"Title 10 of U.S. Code 2665 provides the framework for financing the Department of Defense Forestry Program," Spence said. "The law allows program funding to be reimbursed from forest product revenues, and creates state entitlements to 40 percent of program net revenues at each installation."

The main goal of the program is to support military readiness through good land stewardship and, as an added benefit, many counties receive money from the program.

"State entitlements vary widely from year-to-year and are computed for each installation with payments going to local counties that contribute to the total acreage contained in the installation," Spence said. "The entitlement money is intended to support public schools and provide road maintenance for each county."

Because the entitlement amount is based on net revenue, the amount is directly related to the harvest volumes and market prices.

"Harvest volumes vary each fiscal year and forest product markets tend to be cyclical," Spence said. "Since costs and revenues vary, a particular installation does not achieve a positive net profit every fiscal year. During the last five years, installations supported by Savannah District have contributed more than \$2.5 million to local counties for an average of \$500 thousand per year."



Mike Byrd, resident forester at Fort Benning, Ga., sizes up a tree for the timber harvesting program.

And timber harvesting improves the overall vitality and vigor of the forest.

"We perform general thinning of the forests, do specialized work to improve endangered species habitats, and clear trees from construction sites if it is commercially possible," said Mike Byrd, Timber Harvesting Program, Fort Benning, Ga.

Endangered animal species encountered such as the red-cockaded woodpecker, bald eagle, indigo snakes, and flatwoods salamander have specific guidelines in regard to harvesting operations.

"Guidelines dictate the time of year harvesting can take place," Byrd said. "They also establish machinery restrictions in vicinity of known populations, establish buffer zones where logging is prohibited, and provide rules when endangered species are encountered unexpectedly. There are similar restrictions for endangered and unusual plants."

Besides endangered species and archeological considerations, ground condition is another environmental factor influencing logging operations.



A feller/buncher can cut, haul, and stack trees up to 25 inches in diameter.

"If soil conditions become too wet and logging equipment begins to rut the ground too deeply, we restrict or stop work to prevent damage to the soil structure," Spence said. "We tailor some of the harvesting systems to match anticipated woods conditions in an effort to eliminate or minimize damage during logging."

Savannah District's Military Timber Harvesting program harvests timber at Army installations in three states, and the civil program includes Hartwell Lake, Richard B. Russell Lake, and J. Strom Thurmond Dam and Lake, as well as all lakes under Wilmington District's civil works program.

The key to the success of the Timber Harvesting program is teamwork.

"The forestry program couldn't function smoothly or as cost effectively if the installation forestry staff and USACE elements did not work cooperatively during the harvesting phase of timber management," Spence said. "The installation and USACE regard each other as full partners in conducting this vital part of the program."

## TDY feds not liable for damaged trucks

By Anna Stamps  
Huntsville Engineering and Support Center

Carl "Bubba" Collision, a resident engineer staff member, goes on TDY and rents a vehicle. This time, Bubba decides to use the new U.S. Government Truck Rental Agreement and rent a pickup truck for the work he will do on his trip. (*Note: This is a hypothetical story.*)

While hauling a load of supplies in his rented truck to the work site, Bubba doesn't notice another car pulling out of the site, and the vehicles collide.

Bubba wonders whether he will be held liable for the damaged truck, and contacts his district's Office of Counsel.

Unlike the recently revised U.S. Car Rental Agreement, coverage for accidents under the U.S. Government Truck Rental Agreement involving rental cargo vans, pick-up, utility, and straight trucks (commercial) has not changed. Specifically, according to the U.S. Government Truck Rental Agreement managed by

the U.S. Army Military Traffic Management Command, government renters will not be subject to any fee for loss or collision damage waiver.

In the case of an accident involving a vehicle rented under the terms of the U.S. Government Truck Rental Agreement, a government renter will not be responsible for loss or damage to the vehicle, except in a few circumstances listed below.

Under the U.S. Government Truck Rental Agreement, a rental company will assume

and bear the entire risk of loss of or damage to the rented vehicle from any and every cause, except where loss or damage is caused by

one or more of the following:

- Willful or wanton negligence on the part of a driver.
- Obtaining the vehicle through fraud or misrepresentation.
- Operation of the vehicle by a driver who is under



the influence of intoxicants or any prohibited drugs.

- Use of the vehicle for any illegal purpose.
- Use of the vehicle in pushing or towing another vehicle.
- Use or permitting the vehicle to carry passengers or property for hire.
- Operating the vehicle in live artillery fire exercises, or in tactical maneuver training.
- Operating the vehicle in a test, race, or contest.
- Operation across international boundaries unless specifically authorized at the time of rental.
- In the event that the vehicle is stolen and renter cannot produce vehicle keys, unless filed police report indicates keys were stolen through theft or robbery.
- Operation of the vehicle off paved, graded, state or professionally maintained roads, or driveways, except when the company has agreed to this in writing beforehand.

These guidelines, which previously applied to all government vehicle rentals, now only apply to the rental of cargo vans, pickup, utility, and straight trucks.

(Anna Stamps works in the Office of Counsel at the Huntsville Center.)



# Joint efforts bring plants back to Penn. mountain

By Chanel Weaver  
Baltimore District

Blue Mountain, a mountain that runs through the small town of Palmerton in eastern Pennsylvania, looks like one of nature's jewels. Surrounded by tall, robust trees and green, healthy grass, this mountain serves as a nurturing habitat for birds and other wildlife. The mountain seems to be a typical example of nature and its beauty.

But Blue Mountain has not always been beautiful. In fact, its vibrant environment is partly the result of a joint restoration effort by the Environmental Protection Agency (EPA), in conjunction with the U.S. Army Corps of Engineers and Zinc Corporation of America, to repair the rapidly decaying mountain.

## Before restoration

Fifteen years ago, visitors to Blue Mountain witnessed a scene quite different from the one that exists today. Parts of the mountain were severely damaged. Barren trees populated the region, and wildlife deserted the area in search of a better environment.

"There was nothing there," said Larry Piazza, a Baltimore District project engineer who has been working on the multi-million dollar Blue Mountain restoration project since 1986. "You could walk on the mountain in the middle of the summer and you wouldn't get a single bug bite because there was nothing there."

John Lombardo, another Baltimore District employee, said that Blue Mountain was quite a disaster when he came on the scene more than 10 years ago.

"When we first arrived here, it looked like a nuclear disaster," said Lombardo, who serves as the construction representative on the site. "It was nothing but dead trees. There were no animals anywhere."

During the first half of the 20<sup>th</sup> century, the primary employer in Palmerton was the New Jersey Zinc Company, predecessor of Zinc Corporation of America.

For nearly 70 years, this company emitted huge quantities of heavy metals such as zinc, lead, copper, cadmium, and arsenic. Eventually, the fallout from the smelting operations caused buildup of these metals on the mountain. Contact with rainwater spread the contamination from the soil to the surface water runoff and groundwater.

This pollution led to the decay of 2,000 acres on the mountain. Soon, runoff and erosion carried contaminants into the nearby Aquashicola Creek and Lehigh River.

## All helped destroy it

Joseph Plechavy, who has lived in Palmerton since his birth 88 years ago and who worked at the zinc company for 43 years, knows that he indirectly played a part in polluting the environment.

But while the New Jersey Zinc Company is widely held responsible for destroying parts of the mountain, Plechavy said the zinc company should not be blamed entirely for the mountain's decay.

"We all had a part in destroying the mountain," said Plechavy, who also serves as the town historian. "We brought down wood from its trees to heat our homes, and we plucked its huckleberries so we could eat huckleberry pie."

## Restoration in progress

By the late '80s it was evident that Blue Mountain needed remediation. In 1987, the EPA identified a number of companies as potentially responsible for the mountain's decay and initiated an effort to clean it up. Most of the responsibility for restoring the mountain was assigned to Zinc Corporation of America, but the Corps also played an important role.

"The Corps was primarily responsible for overseeing the ongoing restoration work by the responsible parties, and for giving technical assistance to the EPA," said Lilian Chudnovsky,



A truck moves up Blue Mountain spewing a mixture of sludge and fly ash to aid the revegetation process. (Photo by Chanel Weaver, Baltimore District)



Blue Mountain is partly revegetated, thanks to joint restoration efforts by the Environmental Protection Agency, Corps of Engineers, and Zinc Corporation of America. (Photo courtesy of Baltimore District)

Programs and Project Management project manager for the Blue Mountain project. Chudnovsky said that the Corps was also responsible for enforcing the EPA's guidelines and regulations.

The first half of the restoration began in 1991 and ended four years later. This remediation process provided an application of a sludge and fly ash mixture to the slopes of Blue Mountain, and planting grass and tree seedlings into the mixture to form vegetative cover.

Zinc Corporation of America treated the run-off from the mountain to ensure that the contaminants would not pollute nearby lakes, streams, and rivers.

In 1996, the Corps involvement with the project changed

from restoring the mountain to maintaining the parts of the mountain that had been restored. "The contaminants are still there, so maintenance of the site lasts forever," said Piazza.

But there still remains on the mountain an additional 1,000 acres that need to be revegetated.

## Community reaction

Today, Blue Mountain is quite close to regaining its former beauty. The grass is greener, the trees are stronger, and the wildlife has returned.

"Since the mountain has been restored, turkeys, pheasants, foxes, deer — everything is back on the mountain," said Piazza.

With about half of the mountain restored, the residents of Palmerton say they are grateful

for the work the Corps and other agencies have done.

"Every time I go out, I look at the mountain," said Plechavy. "Now I can say that the mountain looks good."

Plechavy's niece, Pat Huber, who is also the deputy for small business in Baltimore District, is also pleased with the restoration effort.

"I know the townspeople are extremely happy with what the Corps has done, and it makes me extremely proud as a Corps employee," said Huber.

Piazza said he is glad that he has played a role in preserving nature.

"It's really been a rewarding job," said Piazza. "Anybody can restore a building, but to bring an environment back is just amazing."



# Ordnance removed from Ft. Ritchie

By Marshall Hudson  
Baltimore District

A year ahead of schedule, under budget and with a perfect contractor safety record, Baltimore District's \$7.2 million ordnance and explosive removal project at Fort Ritchie, Md., reached its operational one-year anniversary in June.

Managed by personnel from the district's Environmental Remediation Resident Office, the project is the cleanup of unexploded ordnance including mortars, light rockets, and grenades from former training ranges, and areas filled by soil from those ranges.

The project's original scope was to remediate 208 of the post's 614 acres.

That milestone will be reached by the fall, although the project's final area will probably involve about 260 acres, according to Joseph Brutsman, project engineer.

"The project expanded because a 200-foot buffer zone where no ordnance is found is required to ring the entire work area," he said. "Every time something is found near the edge of the project, the removal area expands."

Fort Ritchie, located in western Maryland, closed in September 1998 as part of the Base Realignment and Closure Act (BRAC). Baltimore District has been involved with the Fort Ritchie project since



High-tech sensing gear has found almost 300 pieces of unexploded ordnance at Fort Ritchie, Md. (Photos courtesy of Baltimore District)

before the post closed. As planning for the ordnance removal occurred, the team removed underground storage tanks and remediated hazardous, toxic, and radiological wastes at buildings like the photo lab and the motor pool.

"We started with an Archival Search Report; then performed an engineering evaluation and cost analysis and finally did geophysical mapping and data col-



lection to confirm areas that needed to be remediated," said Brutsman. "Some of the records for the post did not exist, and sometime in the post's history a lot of ground was moved to make it more level, putting built-up areas over areas once used for training."

The post belongs to the U.S. Army Military District of Washington (MDW) until it is turned over for redevelopment.

Turnover should be completed by 2005.

"Dealing with the Corps has been terrific," said Bill Hofmann, BRAC environmental coordinator for MDW. "All of the Corps people here, notably Chris Evans, have really treated us well as customers. In a word, this experience has been great."

Baltimore District has located, excavated, and disposed of almost 300 pieces of unexploded ordnance from the site. About 80,000 other metallic anomalies, which turned out to be everything from metal fragments to nails to magnetic rocks have also been investigated.

The excavations were dug to a four-foot depth in areas with potential for reuse, and to a one-foot depth on the mountainside. Deed restrictions preventing future unsupervised digging will be placed on the land when it is turned over to the public.

The Army has retained about 20 acres of the post for the Maryland National Guard. The remaining acres will eventually go to the PenMar Redevelopment Corporation, a state-created entity whose goal is to maximize economic opportunities for Washington County.

Besides not knowing exactly where all of the UXO was located, the project has overcome other challenges, including contractor bankruptcy and buy-out, without the schedule being affected.

# Civilians take over Ft. A.P. Hill utilities

By Jean Pavlov  
Huntsville Engineering and  
Support Center

Baltimore District, supported by Huntsville Center, successfully completed the privatization of the electrical distribution system for Fort A.P. Hill, Va. On Aug. 1, Rappahannock Electric Cooperative (REC) officially took over ownership, operation, and maintenance of about 200 miles of electric distribution lines at the installation.

This transfer was a result of more than four years of work between REC, Fort A.P. Hill, the U.S. Army Corps of Engineers and the Military District of Washington Acquisition Center at Fort Belvoir, Va.

## Privatization

In 1997, the Chief of Staff of the Army issued a policy memorandum urging installation commanders to look to private contractors to provide utility services. During that year and the next, the Department of Defense created two reform initiative directives that provided OSD guidance and set up specific goals.

In 1998, REC submitted a bid to the Army for operating the electric distribution system at Fort A.P. Hill. Located on 76,000 acres in northern Caroline County, Fort A.P. Hill is a regional center providing realistic joint and combined training for both active and reserve forces of the U.S. military, and for other government agencies.

REC owns and services utilities in most of Caroline County, and has a district of-



The Rappahannock Electric Cooperative now has responsibility for operation and maintenance of the 200 miles of electric distribution at Fort A.P. Hill, Va. (Photo courtesy of Baltimore District)

fice in Bowling Green, Va. REC is also familiar with the installation's electrical distribution system, since it served that area before the establishment of Fort A.P. Hill.

"Baltimore came to us seeking our expertise in public/private partnerships, particularly the financial, business, and pricing

aspects," said Plyler McManus, special projects specialist for Huntsville Center. The Center received total responsibility and authority to negotiate a business deal with the local electric cooperative.

In turn, Huntsville Center sought and received a great deal of support from the

local Defense Contact Audit Agency (DCAA) office. Scott Compton from DCAA took a leading role in developing the government's position, and in negotiation with the contractor.

## Quantum leap

"The DCAA-Huntsville Center partnership resulted in a quantum leap in our approach to this type of business relationship," said McManus. "We're currently working to factor what we learned into our own solicitations."

Baltimore District retained responsibility for the technical aspects of the work and the scope of work.

"The Baltimore District contracting officer gave Huntsville Center a great deal of freedom, allowing us to work closely with the managers and accountants at REC to craft a business and pricing structure that met all parties needs," said McManus.

## Partnership

"The Center, in turn, worked hard to keep Baltimore District informed, and to seek feedback on where we're going," McManus continued. "We worked together seamlessly building enviable relationships between the Center, DCAA, and Baltimore District's Ed Rutherford, the project manager, and Jerry Rifkin, the contracting officer."

"We're proud of the teamwork exhibited, the relationship we built, and the final product," said McManus. "But Fort A.P. Hill and the Army are the ultimate beneficiaries."



# Building for peace

## Corps' construction program in Israel may help ease tensions

Article and Photo  
By Grant Sattler  
Europe District

Europe District's Israel Program Office (IPO) is taking concrete steps so that a long-hoped-for peace may move closer to reality. The IPO is overseeing construction of three military bases in Israel to house Israeli troops and equipment that will relocate from facilities in the West Bank. The concept is part of the 1998 Wye River Memorandum agreement between the Palestinian Authority and Israel.

The U.S. Army Corps of Engineers is managing the construction of two infantry training bases designed by the Israeli Defense Forces (IDF), and a design-build reserve division storage base. The Corps will soon solicit bids for a smaller fourth site, and the fifth Wye River project is scheduled to begin next year.

### Small cities

"It's fascinating, building small cities out in the desert, out of nothing," said Col. Larry McCallister, former Deputy District Engineer of the IPO. "It's a win-win situation. The Israelis agreed to move troops out of the West Bank if they could get new facilities to move them into. The Israelis get their troops out of harm's way, and the Palestinians get the troops out of the West Bank."

Funding for the bases was included in the fiscal year 2000 Consolidated Appropriation Act as a Foreign Military Sales case authorized under the Arms Export Control Act.

"The Corps was pulled in to oversee the construction," McCallister said. "We started in the fall of 2000 on the ground, but the planning began much earlier that year."

The program began with a handful of people in Israel and has grown exponentially, but the IPO staff throughout Israel remains small at fewer than 20.

The Wye River program is managed via the direct process and is unique in that it is directly funded. "The money's in the bank and that's it," McCallister said. "The Israelis are interested in seeing that every dime goes into bricks and mortar, as opposed to paying for additional manpower. That's why on every site we have just the minimum number of Corps employees, and the Israeli Ministry of Defense (MoD) has agreed to give us additional inspectors to help us do the work."

Work on all three of the major bases is well under way. The next project, the Jerusalem-area Site 276, with its unique challenges because of its location and proximity to historical buildings, will begin this fall.

### Southern Infantry Training Base

The Southern Infantry Training Base (SITB) is a few kilometers north of Beersheba in the Negev desert region. Construction on this, the most remote of the three bases, began in mid-March 2001 and is now more than halfway to completion.

"This is in one of the isolated areas that's already used by the Israelis for training," said Sig Milerski, quality assurance engineer for Southern Infantry Training Base 81. "Now we're building a substantial training base with the whole range of support — barracks, dining facility, synagogue, offices, gymnasium, and classrooms."

The cost of the 80-structure project is about \$40 million.

Kenneth Goldberg joined the SITB Project Office from Philadelphia District. He said it is not often one gets to build a synagogue while working for the Corps, especially one that faces north to Jerusalem. Another cultural feature of the base is its dining facility with special equipment to ensure kosher dietary restrictions will always be followed, including a timer on the building's power to ensure no cooking takes place during *Shabbat*, the Jewish Sabbath.



Construction underway at the Southern Infantry Training Base in Israel.

While most of the southern base is straightforward vertical construction, Milerski notes that the infrastructure (potable water, fire suppression systems, electricity, communications, sewer lines, and drainage culverts) had to be built before any buildings were begun. "Initially there was nothing but a goat field," Milerski said.

The installation's positioning across a narrow hill valley, bisected by a rainy season stream called a *wadi*, required that a giant culvert be installed beneath the site, and 360,000 cubic meters of earth and stone to be drilled, blasted, and dug from the hillsides.

Three-quarters of that material was used as fill in low places, and as berms for 14 weapons firing and maneuver lanes in two ranges that are part of the base. Topsoil from the cuts was saved and stones were crushed into gravel on-site for compaction into pads for building foundations. But the base itself is by no means flat; facilities are positioned at varied elevations.

"The design is a combined MoD and IDF effort," Milerski said. Construction is a joint venture by Solol-Boneh and Minrav Holdings Ltd.

McCallister said, "The program is unique for the Israelis." The quality and caliber of construction and the level of design effort that the Israelis put into the project is a new development. "They're looking for these bases to be showpieces for the future in the way they want to train their soldiers and store their equipment."

For the southern base, that means the IDF Logistics Branch Construction Center designers considered the psychological aspects of training a cohesive infantry company, and the impression the design and layout of the facility will make on trainees.

### 'Hilton for soldiers'

Aesthetics are also considered. The MoD/IDF design incorporates regional style with cut stone facades along the main street, and rooftops designed to hide unsightly air conditioning units, a feature of the new training base that has some Israeli soldiers calling it the "Hilton for soldiers."

"It will be a lot more comfortable for the trainees with air conditioning for all the buildings," Milerski said. Compared to training locations now used, the southern base and its sister base, the Northern Infantry Training Base, will have larger rooms, more barracks space, more common use areas, a larger, more efficient dining facility, a gymnasium, and running track.

Nevertheless, it is their new locations inside Israel that trainees will most appreciate.

"I think they'll appreciate moving to a new facility and a new area that's safer for the soldiers, and for their families when they come to visit them as they go through basic training," Milerski said. Parking outside the facility is designed to accommodate family visitation days once trainees occupy the new southern base.

With an aggressive 18-month construction schedule, completion was set for October, but has been delayed by heavy spring rains that converted the choking desert dust into slippery ooze that mired men and equipment for weeks.

Firing ranges were finished in January and since then the 10 company quarters areas, company headquarters, staff housing, and all the support facilities have taken shape. But the security situation may impact the contractor's ability to continue work on schedule. As the labor changes to finish work, different workers with different skills are needed. As of last December, Israeli Ministry of Labor rules prohibit bringing third country nationals into the country.

"The situation is Israel-wide," said McCallister. "It's not directed against our projects. The labor issue is affecting the entire construction industry across Israel." The IPO is working through the Israeli MoD Building and Construction Department to see what solutions can be found.

"We look at our projects as no more special than any other construction projects, but these were agreed upon country-to-country," McCallister said.

McCallister's replacement as Deputy District Engineer of the IPO, Lt. Col. John Rovero, said no change to the Israeli foreign labor policy is expected soon. "It will remain an issue," Rovero said. "We just have to make sure that the Israeli MoD is aware that the long-term result will be longer project durations and more cost."

### Northern Infantry Training Base

The Northern Infantry Training Base, near Hadera, mirrors the southern base in design, but is site modified for a hilltop location beside an existing IDF training camp.

The northern base is being built as a sole venture by U. Dori Engineering Works Ltd., an Israeli company.

"Normally, under Foreign Military Sales, the contrac-

Continued on next page



# Retiree has 26 years in Middle East

By Joan Kibler  
Transatlantic Programs Center

Twenty-six years gives a person a lot of perspective. "The program is no less challenging today than it was at its inception. Our role has changed, but not drastically. When the program began, we were looking at a major undertaking with a somewhat unknown future. We're still looking at that...the 'ups and downs' are common to any organization."

Those were Wayne Henry's words in 1981 when he was named chief of Construction Programs Branch in the former Middle East Division (MED). He was five years into his assignment with MED, one of the predecessor organizations to today's Transatlantic Programs Center (TAC). MED managed a \$14 billion design and construction program in Saudi Arabia fully funded by the host nation and accomplished under the Department of Defense's foreign military sales (FMS) program.

While a great deal has changed in the 21 years since Henry uttered those words, some things have remained remarkably similar.

"When I joined the Middle East Division in 1976, I was told the organization had a five-year future in Saudi Arabia," Henry said. "Here I sit, 26 years later." In August, Henry retired from the U.S. Army Corps of Engineers with 33 years of federal service.

Ultimately, the Saudi Arabian program lasted 12 years and, along the way, the Corps retooled to meet engineering missions emerging elsewhere in the Middle East and Africa, and eventually in Europe and Russia. As the mission changed, so did the organizational configuration with the titles of Projects Office, Division, and finally, Center.

**Programs.** Twenty-six years later, in increasingly responsible positions in the Corps, Henry has seen the completion of a variety of engineering programs accomplished on behalf of the nation's overseas objectives:

- The behemoth Saudi Arabia construction program, closed out in 1988.
- The front-line engineering services that the Corps provided to the U.S. military when the Middle East/Africa Projects Office established the Dhahran Area Office to support Operations Desert Shield and Desert Storm.
- Assistance provided to the Kuwait government in rebuilding its civil and military infrastructure following its liberation from Iraq.

## Israel

Continued from previous page

tor has to be a U.S. company, but under Wye River, Israeli firms could do it alone," said Michael Tibbs, a project engineer at the northern base. "In the three bases we have all three — U.S., Israeli, and joint venture between U.S. and Israeli.

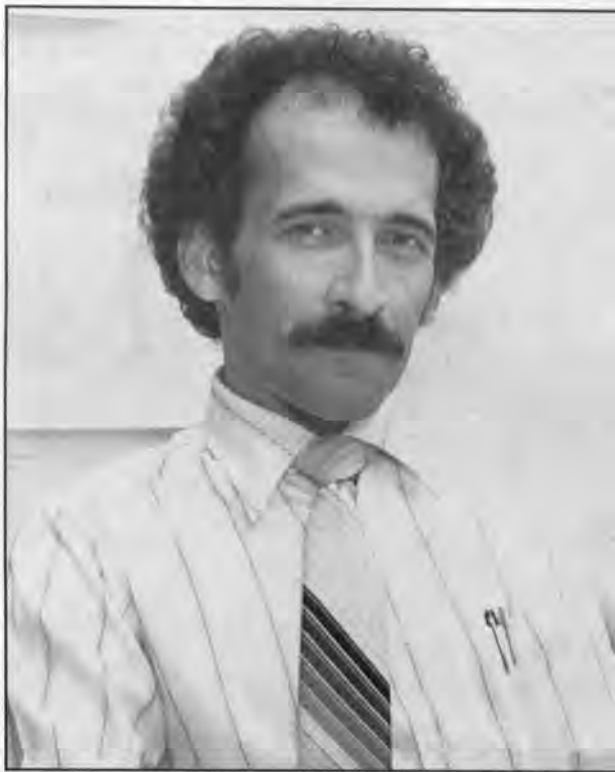
"Another difference, besides the terrain, is they're building more firing ranges," Tibbs said. "We have six existing lanes that we're modifying, two that we're making longer, and we're building two more on the existing range in phase one."

The construction of four more ranges northwest of the base is on temporary hold due to an archaeological find. "It rests atop of what is believed to be an ancient city," Tibbs said. He hopes a planned excavation to determine the extent of the archaeological site will allow a shift of the range closer to the base.

The contractor is planning to obtain fill for the center of the base from the present hilltop range location.

"He needs that soil," Tibbs said. If the range cannot be built, it could cause a major contract change because fill materiel would have to be trucked in from off site. The archaeological issue is key because work on some of the buildings cannot begin before the earthwork is completed.

Although the northern base is the last of the three to be started (ground broke in February), work is moving ahead



Wayne Henry retired with 33 years in the Corps of Engineers, 26 of those in the Middle East. (Photo courtesy of Transatlantic Programs Center)

- Design and construction of facilities to meet U.S. military requirements in the Arabian Gulf, in accordance with U.S. and host nation agreements.

- Significant FMS programs that support Egyptian air force, navy, and land forces requirements. (The FMS program permits the sale of military equipment and services to foreign allies).

- Logistics contracts that supported U.S. military deployments to hot spots such as Somalia, Haiti, and the Balkans region.

- Work in the former Soviet Union states and Russia.

Besides the work expanding well beyond that envisioned when MED was created, Henry has watched the slate of customers change and the locations grow. As director of Engineering and Construction Management, Henry has been responsible for program and project management activities in TEC's area of operations.

"As I look back on the last 26 years, the consistent

quickly, and the contractor is erecting cranes for a different building technique than used at the southern base.

"At the southern base a lot of the buildings were going up at the same time," Tibbs said. "Our contractor wants to start with a technique that he feels will be more efficient and effective using six tower cranes. They will start with the 10 barracks facilities, doing one at a time, in hopes to overcome the manpower shortage by moving workers to each building."

Cranes will move pre-built forms from building-to-building.

Probably the most critical facility on any training base, the dining hall, has been started already to avoid some difficulties experienced at the southern base.

"We're really appreciative that there's a base eight months in front of us," Tibbs said. "The value of the southern base and the lessons learned can't be overstated."

Also of tremendous value is that the same IDF project manager is involved with each location, Tibbs said.

The current problem with bringing foreign workers also may affect the northern base in the future. "The southern base is out in front; hopefully they'll solve it," Tibbs said. "We can get some workers from the southern base because they'll be finishing, but the Central Base will be competing for same personnel." He expects, however, that the IDF will place priority on completing the training bases, as they impact the greater number of people.

thread has been the strong need for Corps' services where we operate," Henry said. "The Corps has contributed to the U.S. presence and ability to operate in an important part of the world. We've had a significant impact on the quality of life for U.S. forces.

"We've put billions of dollars of facilities in place to meet customer needs, and we've had a considerable degree of success," Henry said. "The Corps' work in the region greatly benefits the government as a whole."

A large portion of TAC's work supports U.S. military operations, with facilities designed and constructed to meet the needs of the U.S. Central Command (Army, Air Force, Navy, and Marines) in the Middle East. Additionally, TAC manages a logistics services contract in the Balkans that provides life support (food, water, sanitation, laundry) and maintenance and transportation services to the U.S. Army personnel there.

Another portion of the work supports the security assistance goals of the FMS program. It was through the FMS program (initially in Saudi Arabia) that Henry was introduced to working overseas and with foreign cultures.

**Fascinating.** "Dealing with foreign customers has been fascinating and incredibly rewarding," Henry said. "We must continually work to understand their perspectives and desires, which sometimes is complicated by language barriers. Our foreign customers want to be involved, and they want to be in control of the decision-making processes.

"Of course, this is not unique to foreign customers," Henry continued. "For the Transatlantic Programs Center, and the Corps, to continue to be successful, we must focus on the customer's real needs and what it takes to satisfy those needs, rather than on what we're comfortable doing. Flexibility and the willingness to be innovative and operate in different ways are critical to the Corps' future. We must understand the customer's intent and be willing to accommodate it."

Henry said that none of this is new. "The Corps has continuously changed to meet the nation's needs, and it will continue to change. The challenge now is to change fast enough to keep up with, and anticipate, future needs."

**Hiring.** He also expressed concern about hiring, specifically in the overseas arena. "It's getting harder and harder to staff field offices, and we must continue to develop recruitment strategies to attract people to our overseas locations. This, too, will require flexibility and innovation. Ultimately, I believe the Corps will have more private sector involvement in field offices. For instance, we may need to contract for portions of the quality assurance business."

Henry has a particular affinity for the construction side of the Corps business, and in TAC he has been the recognized "construction advocate" for years.

"While I've had many great experiences in my career, the best job was when I was a resident engineer with Chicago District," Henry said. "It's in the field where the real action is. That's where plans come out of the dirt and turn into reality. This is the most fun part of what we do.

**Fun, success.** "More than just being fun, though, we must succeed at construction," Henry continued. "If we don't succeed at construction, we don't meet the customer's requirements. As the Corps continues to implement the project management business process, we must keep a focus on quality construction."

During his tenure, Henry has made dozens of trips overseas. He has met with hundreds of Corps employees and many, many customers. He has watched customers and programs change, and Corps people come and go. His knowledge of overseas programs and customer expectations are unparalleled.

When he looks back on more than three decades in the Corps, he said, "I hope I've helped people in their career progression. Good people have caused the success."

A modest statement from a man respected by many. In a grass-roots employee awards program, Henry was honored as TAC's 2002 Employee of the Year.



# Coins

## Army coin tradition sweeps armed forces, now enters civilian world

Article by Mike Tharp  
Photo by Dr. Fred-Otto Egeler  
Los Angeles District

When Delsie Sharp received a "Commander's Coin for Excellence," she had no idea she was part of an amazing national trend.

Sharp got the coin for her work as the receptionist for Los Angeles District's Public Affairs Office. "I like this coin. It's different - colorful," said Sharp. "Other coins are smaller and not as colorful. I'll leave it hanging here by my desk in its holder."

Her coin from Brig. Gen. Larry Davis, commander of South Pacific Division, is two inches in diameter, made of bronze metal with red and white enamel trim. It is just one example of a tradition that has swept the uniformed services, engulfed other government agencies, and is now spreading to private corporations.

They have various names — "unit coins," "challenge coins," "honor coins." But whatever you call them, they have become the currency-of-choice for awards, identification pieces, and even (like stamps and baseball cards) collector's items. Since the early 1980s, when a federal law first allowed wide discretion in designing government employees' awards, coins have been palmed throughout all five military branches.

Although no one has an exact count of how many coins there are in the U.S. Army Corps of Engineers, a quick glance at the collections in the Chief of Engineer's office, or the Command Sergeant Major's office, indicates that almost every Corps division, district, lab, or other major unit has its own coin.

More recently, civilian agencies and local governments have started distributing them to their members and employees. And just this year, private companies began embracing the idea. For example, Raytheon recently ordered a key-chain engraved with its Maverick Missile system.

Maurice Green, general manager of the Military Service Co., says his firm's sales of coins have doubled in the past year.

From a handful in the Vietnam era, the number of coins has metastasized into tens of thousands. Probably every U.S. military unit now has one. Coins are minted for individual campaigns like the Persian Gulf War. Special groups like former POWs and veterans are commemorated in coins. Fire and police departments, rescue squads, Boy Scouts, fraternities, and defense contractors hand them out.

Most are made of antiqued bronze, but custom orders include antiqued silver, nickel- and gold-plated coins. Dozens of companies have entered the market. Many of them post their wares and prices on Web sites, but the military grapevine gets the word out on good deals and interesting designs.

The coin phenomenon has been common throughout history. Some trace its roots to ancient Rome whose soldiers sometimes received coins for gallantry. Another theory is that, in 17th century Britain, metal buttons embossed with distinctive designs were used in trade as equivalents to money.

In the early days of America, the U.S. Mint struck "peace coins" bearing the likeness of the president on one side and symbols of peace and friendship on the other. These medals were given to important leaders at treaty signings and other events. The Lewis and Clark expedition carried a supply of "Indian Peace Medals" bearing the portrait of Thomas Jefferson for presentation to important Native American chiefs.

Yet another tale suggests that a wealthy World War I American aviator had bronze medallions cast for the men in his squadron. A World War II version has G.I.s receiving coins when they mustered out.

Coinage history declares that the modern manifestation started in the early 1960s in Vietnam with the Green Berets. According to an article in *Soldier's* magazine, "A



Special coins are the currency-of-choice in the armed forces for unit identification, awards, and to commemorate events and deployments.

member of the 11th Special Forces Group took old coins, had them over-stamped with a different emblem, then presented them to unit members...A former commander of the 10th SFG picked up on the idea, becoming the first to mint a unit coin for a U.S. military unit. The 10th Group remained the only Army unit with its own coin until the mid-1980s."

Then coins began to rain like, well, pennies from heaven. From elite units, the coin custom filtered throughout the whole Army, then into the other armed forces, and in the 1990s the ritual became a tradition.

Today the coins serve as "attaboys" to reward jobs well done which don't quite qualify for a medal or extra money. As they've proliferated, commercialization has led to some

abuses, including overspending and counterfeiting.

In 2000, reported the *Wall Street Journal*, the Army proposed that only colonels and generals could hand out coins. But an outcry from soldiers worldwide quashed the idea. The *Journal* quoted Lt. Col. Paul Mittelstaedt, "If the Army is so worried about the money spent on coins, buy one less M-1 tank or B-2 bomber and fund the coin program for the next 10 years."

Coins will be around for a lot longer than that. Said Sgt. Joel Welsh on the [www.militarycoins.com](http://www.militarycoins.com) Web site, "For years after I'm out of the service, paperwork, awards, and certificates of achievement will have long been lost. But coins will remain, with all the pride and symbolism that they hold. They will be a constant reminder of all the personal pride and hard work that I've put into my career."

## Tech manager is drummer for old-time blues great

By Eric Lincoln  
New Orleans District

Thomas "Wade" Wright, a technical manager in Engineering Division, had a rather unusual vacation in Canada. As the drummer for local blues guitarist Little Freddie King, Wright performed in front of more than 45,000 people at the Montreal Jazz Festival.

Except for the number of people, it's not that unusual for Wright, who has played in Little Freddie's band in cities around the world, including Paris and Amsterdam.

Wright said he's proud to play with a legitimate blues man like Freddie King.

"Freddie writes all his own stuff; I was playing a lot of cover music with these other guys," Wright said, referring to his earlier days playing with acts like Freddie Fender, Ernie "K" Doe, and other New Orleans artists. "But Freddie's a classic. When these people meet him, like in Paris, they don't know what to think. He's an old blues man, been through a lot of depression and poverty. They all think he's got dough," Wright added, and laughed. "Freddie's the real thing. He lives the blues."

Wright began playing drums when he was 16 years old, but stopped when Uncle Sam drafted him in 1968. He picked it back up again in 1975 to do a reunion show with The Sparks, a band that had a major hit, "Mary

Lou," in the 1950s.

"I found out that playing drums was like riding a bike — you don't forget the technique," he said.

After that he dusted off his cymbals and tested out his chops again in Bourbon Street clubs and with big horn bands. But things changed when Wright heard Little Freddie. "I got drawn into the simplicity of it," he said. "Just drums, guitar, bass; not too much confusion; just clean pickin'."

Wade has cut one CD with Little Freddie, and the band is scheduled for a trip to Switzerland later this year.

"I've been lucky," Wright said. "We schedule out-of-town trips with my annual leave."

Wright, who has been married for 35 years to his wife Barbara, said the short road trips aren't difficult but ones that require long flights "can get to you. To last on the road, you have to be young."

Fifteen years worth of trips with Little Freddie offer no shortage of good road stories.

"One time, we were stayin' in a hotel on the 18th floor," said Wright. "I wake up in the mornin' to go get some breakfast and here's Freddie standing in the elevator. I said, 'How long you been standin' there?' He said, 'Well, I been up and down this elevator tryin' to find the first

Continued on next page



# Dredges clean up Superfund site

By JoAnne Castagna  
New York District

If you take a drive 410 miles north from New York City, and go west from Plattsburg, you will reach the "elbow" on the Canadian border, where the beautiful St. Lawrence River runs and where sits one of the Environmental Protection Agency's (EPA) critical environmental clean up projects—the Reynolds Metals Superfund Site in Massena, N.Y.

The site is the Reynolds Facility that used to be owned by the Reynolds Aluminum Wrap Co., and is now operated by Alcoa Aluminum. But it is still called the "Reynolds" plant. The facility has been an aluminum fabricating plant since 1958. During the 1980s the EPA discovered that various types of industrial waste, including polychlorinated biphenyls (PCBs), were being discharged into the St. Lawrence River.

The EPA said that the river needed to be dredged and capped, otherwise this would pose an environmental and public health risk to surrounding businesses and communities, including the St. Regis Mohawk Tribe Reservation, just one mile down the St. Lawrence River.

The Mohawk community, which is politically influential in the area, is involved in this project and is working closely with the project team that includes EPA Region II; New York State; Alcoa (Reynolds); several U.S. Army Corps of Engineer districts including New York, Kansas City, Buffalo, and Detroit; and TAMS Consultants.

## Kucera leads project

The project is a Kansas City District mission because the district supports all of the EPA Region II's environmental cleanup efforts. They were in charge of staffing the project and called on several districts and area offices for suitable candidates.

Mark Kucera, a 20-year civil engineer



Three dredges working within three-quarters of a mile of each other helped clean up the Reynolds Metals Superfund site. (Photo courtesy of New York District)

with New York District, was selected from the list of candidates.

"Since this was a Superfund project under EPA's authority and involved dredging of hazardous material, I was looking for someone with both hazardous, toxic, and radioactive waste (HTRW), and dredging experience," said Donald Braun, project engineer Kucera's supervisor. "I had a couple of engineers who fit the bill, but since Mark had extensive Superfund experience and was familiar with and well respected by the EPA as well as Kansas City District, I chose him."

The Corps' responsibility for the Superfund project was to provide 24-hour oversight of the clean-up operation performed by contractors hired by the Reynolds Metals Corporation.

"The EPA wanted a full-time presence on the federal level. I was the senior full-time federal government representative on site," said Kucera. "With the Corps' experience involving dredging, environmental work, and construction management, we were an easy choice. My role was to verify the remediation work was being performed in compliance with the approved work

plans, and to keep coordination with all the various agencies under control."

## Challenges

Kucera said the project had its challenges, but nothing their team couldn't handle.

"Environmental work frequently yields challenges in that you're not always sure what is there until you literally dig into it," said Kucera. "The short construction season in northern New York complicated things considering the extensive scope of the project. Any problems we had to overcome became a group effort."

Public health concerns were another challenge for the project team. They held frequent Public Availability Sessions to answer community questions. The St. Regis Mohawk Tribe Reservation's Environmental Staff attended the meetings and were always present on-site. Their main concerns were contamination flowing downriver into their property, the release of waterborne and airborne contamination, and the safe removal of dredged material.

Anne Kelly, project manager in EPA's

Superfund Division, worked with Kucera daily. She said, "When I met Mark the first thing that came to my mind was 'military.' He's disciplined and intelligent, but a huge part of the job was dealing with people. Removing contaminated sediments from an international border, upstream of Mohawk Territory and several drinking water supplies is not just a technical job. It's about people."

"The best, most highly disciplined engineers in the world cannot always negotiate solutions when emotions and conflicting agendas are involved," Kelly added. "Mark and the other Corps representatives could. I couldn't have hoped for a better oversight team. Mark is also exceedingly generous — generous with his time, with what he knows, his sense of humor, and his ever-present bag of potato chips at lunchtime!"

## Heartland Award

Kucera's dedication to the project and long hours of work earned him the Heartland Award. "He received this award due to his exemplary performance in the field, including outstanding teamwork skills, and his endurance away from home," said Josephine Newton-Lund, project manager in Kansas City District.

The Heartland Award honors outstanding accomplishments by personnel outside of the district. Col. Robert Morris, a former Kansas City District Engineer, conceived the award. Before his tenure in 1997, there was no formal means to recognize outstanding achievements by individuals outside of the district, such as work performed by other Corps districts, military, and contractual personnel.

"I enjoyed the complexity of the project," Kucera said. "We had what was called the largest dredging fleet on the Great Lakes/St. Lawrence Seaway, three dredges within three-quarters of a mile of each other. All of the dredge spoil had to be transferred to land for stabilization and disposal. Add in all the environmental aspects and the various governments involved, it became more interesting than a typical dredging project. On the lighter side, it's a beautiful part of New York State."

## Future work

Reynolds (Alcoa) has spent about \$47 million to clean up the site. The first phase was completed in early November 2001. The construction is ongoing.

"Twenty-four hour oversight was achieved successfully," said Newton-Lund. "The EPA Region II was happy with our field oversight crew, which was led by Kucera and consisted of personnel from New York, Buffalo, Detroit, and Kansas City districts, and TAMS Consultants, Inc. The Corps oversight crew provided the EPA remedial project manager with on-site information daily. They performed this in an exemplary manner. EPA also depended on the oversight crew's outstanding technical skills."

Kucera stresses that this project was a team effort. "We had a great team of players," he said. "I'd like to think I made a contribution to the team effort."

# Drummer

## Continued from previous page

floor, but there ain't no number one.' I look in at the keypad and it's goes to number two, then L for Lobby and M for Mezzanine and all that. Freddie had been on that elevator 10 minutes tryin' to find the first floor.

"But you gotta know Freddie," Wright added. "He grew up on a farm, he's not a city man. He's been shot three times, stabbed once, he's got a bullet next to his spine. But musically, he's the baddest blues player in New Orleans and he's gettin' a lot of national recognition."

Wright even tried to write a book about his experiences on the road with Little Freddie after one particularly memorable trip to France where the group played at a World War II prison.

"I wrote 15 pages nonstop, but that was as far as I got," he said.

Besides playing the Jazz Fest and French Quarter Fest, Wright plays with Little Freddie every last Friday of the month at BJs Lounge on Burgundy St. in New Orleans. "That's our home base, where all our fans come from," said Wright.



Thomas "Wade" Wright plays at the Montreal Jazz Festival. Bluesman Little Freddie King is in the background; Wright has played for King for 15 years. (Photo courtesy of New Orleans District)





Hansen Dam in Los Angeles District gets a Hollywood make-over into a fortified border crossing. (Photo by Dr. Fred-Otto Egeler, Los Angeles District)



An M-60 tank moves into position at Hansen Dam. (Photo by Mike Tharp, Los Angeles District)

## 'Charlie's Angels 2' films in L.A. District

By Mike Tharp  
and Greg Fuderer  
Los Angeles District

It's a tough job, but somebody's gotta do it.

This summer, several Los Angeles District team members found themselves at work at Hansen Dam. But it wasn't flood control or channel inspection or other duties usually associated with the 62-year-old structure. They were working with Hollywood, specifically with the cast and crew of "Charlie's Angels 2" starring Cameron Diaz, Lucy Liu, and Drew Barrymore.

Film studios regularly ask the uniformed services, including the U.S. Army Corps of Engineers, for cooperation or participation in making movies. In return, the studios pay the Treasury Department for the use of Corps assets and property.

The Corps demands safeguards for its public lands, and producers understand they must comply if they ever want to be invited back. The deal is usually a win-win proposition, and "Charlie's Angels 2" is no exception.

Columbia Pictures made the original "Charlie's Angels" movie, which grossed \$125 million in 2000. The studio was understandably reluctant to reveal many details about its sequel. When L.A. District team members were at the shooting site, a dozen security guards with cell phones patrolled both ends of the dam, an access road, and neighboring property. But the Corps visitors still saw hints of what will likely be one of next summer's hottest films.

On the set, Diaz, Barrymore, Liu, and Robert Patrick ("Terminator 2," "X-Files") went through their paces. Patrick strolled around the set looking bloodied, battered, and bruised, thanks to the miracles of makeup.

**Makeover.** The dam itself underwent a makeover, and few of the area's regular joggers, hikers, cyclists, birders, and equestrians would have recognized their beloved recreational site. Through the digital magic of computer simulation, and the hammer-and-nails work of scores of prop makers, the 10,475-foot-long dam will become an eerie fortified embankment at a Mongolian border crossing.

One part of the dam, for example, morphed into a mountainous man-made backdrop, complete with sandy spillway. The Angels, clad in cold-weather parkas despite the shimmering San Fernando Valley heat, tumbled down that hill as a military truck "exploded" in the background.

Fortified (but fake) lookout towers and a disposable plaster-and-wood wall with a Shaq-sized door added to the Genghis Khan atmosphere behind the women.

From their perches under umbrellas and awnings, directors and technicians watched the action on digital gear recording the actresses' moves. The director is McG, who also directed the first "Charlies Angels" film. (That's



Cameron Diaz, a bit disheveled after filming an action scene at Hansen Dam. (Photo by Dr. Fred-Otto Egeler, Los Angeles District)

his whole name, McG.) For a few frames, Richard Jung, a district contract technical whiz, peered over a video technician's shoulder as the cameras rolled. He saw, up close and personal, action taking place 75 feet away.

Caleb Duffy, an assistant location manager, researched several other Corps locales (Santa Fe, Sepulveda, Hoover, Irwindale, Whittier Narrows, Big Tujunga) before settling on Hansen.

**On location.** "The width of the road on top of the dam was the key element, along with a dam crossing," he explained. Duffy also worked with the Corps at Hoover Dam on footage for "Ocean's 11."

Cost and proximity were two other important parts in picking Hansen, according to Duffy. "The actual cost to shoot a film doesn't vary much," he said. "The travel expenses are what we have to consider. Shooting locally (keeping the industry in L.A.) is also a huge consideration. We want to keep the jobs here."

A week before the actors arrived on-scene and filming began, a critical part of the million-piece puzzle that makes up the film arrived. The studio had rented a 49-ton M-60A1 tank from the American Society of Military History and Museums. Society officers trucked the desert-camouflaged tank to an access road near the dam.

Like a circus ringmaster, L.A. District Superintendent of Dams Ed Kohnman surveyed the surroundings. He didn't want the behemoth to damage the road's relatively

new surface, so he insisted that the film crew lay down huge tractor tires to buffer the tank's tracks from the asphalt. As the crew unloaded the tires, Kohnman pitched in to guide the tires beneath the steel treads.

"I can't damage anything," Kohnman said. "The environment is all under control here. Everything is watered down (he had the crew dispatch a water truck four times early in the morning along the shoulder and a dirt road leading to Hansen) so there won't be any airborne dust."

George McLeary and Jerry Hernandez of the military history society co-piloted the tank over the tires to the dirt shoulder. With Kohnman leading the way in his white four-wheel-drive Corps vehicle, the tank meandered a quarter-mile to the base of the dam.

**'Let's do it!'** There, poised like a giant beetle, it idled its 750-horsepower diesel engine. High up the 30-degree slope, crewmembers watched under the noon sun. Duffy aimed his small camera down at the tank. "This should be cool," he said.

Near the tank, Kohnman nodded and raised his arms. "Let's do it!" he shouted to Hernandez, the driver. Belching black smoke, turret facing downhill, the tank began crawling up the 1,087-foot-long concrete incline. Steel treads groaning and churning, it easily climbed at about five miles an hour to the top, almost 100 feet high.

There, resting on 20 three-quarter-inch steel plates laid to protect the surface, the tank rolled to a stop, ready to attack Charlie's Angels.

"They leave everything immaculate when they leave," Kohnman said of the Columbia Pictures crew. "They've built us fences for free, painted things out here for free. These people are a class act. They mean what they say and do what they say."

The filmmakers even strung new barbed wire along portions of the dam's crest and painted over graffiti on walls below.

**Cooperation.** During the filming, inside a trailer at the other end of the dam, Barbra West was ready with first aid, sunscreen, water, and other safety measures for workers. She was working on her 24th film as an emergency medical technician. With her was Greg Dultz, a driver at movie sets who has chauffeured Stephen Spielberg, Marlon Brando, Orson Welles, and Francis Ford Coppola. "The Corps has been fabulous," Dultz said. "Nothing but cooperative and helpful. They've just really bent over backwards to accommodate us."

And so Hansen Dam had added yet another profile to its once-stodgy silhouette. Now, along with a fake mountainside, two towers, and a giant door, there was a real Vietnam-era tank outlined against the blue sky.

Since Sept. 11, security at all Corps dams is at threat level Bravo. Duffy grinned and pointed at the tank. "If we go to level Charlie, now we got protection," he said.

That's a wrap.



# 'The precious gift of life'

## Corps wife supports her husband during, after heart transplant

By Cindy Foley  
Jacksonville District

We had no idea that moving to Florida would lead to a heart transplant that saved my husband's life.

After returning to Buffalo, N.Y., from a short vacation to Orlando to visit our children in April 2001, Kevin made up his mind. In large red letters, he marked **MOVE TO FLORIDA** over the third week in September on our kitchen calendar.

### Move to Florida

I just looked at him like he was crazy. We had talked about moving before, but I never knew he was serious. We were very involved in our community and volunteer activities. I always wanted to move back to the Sunshine State where I spent my first years away from my hometown of Buffalo, N.Y.

But move across country in five months? Knowing my husband, somehow I knew we would do it, no matter what.

When we (finally) agreed on moving, we had no idea how ill Kevin was. We have lived with his heart condition for almost 20 years. We still often joke that the reason he had his first heart attack at the age of 41 in June 1984 was the thought of marrying me. We actually got married in the Hospital Chapel as he recovered from his first heart attack.

While we lived in Buffalo, Kevin was on the best regimen of oral medication available, verified by his new cardiologist in Florida. But every time he asked his cardiologist (in Buffalo) if he was a candidate for a heart transplant, the doctor's answer was always the same—"No."

In retrospect, we don't know if that was because his doctor didn't diagnose Kevin's condition properly, or if there was just no more to be done where we lived.

Our main focus upon arriving in Jacksonville and settling in was, of course, finding new doctors for both of us, especially for Kevin. That was the beginning of a whirlwind of events that neither of us could have imagined.

### Failing heart

Together we went for his first visit to the cardiologist. We were in for a shock. After reviewing Kevin's medical records, and then listening to his symptoms of discomfort, fatigue, and occasional gout, the cardiologist told us that Kevin had end stage cardiac cachexia.

**Translation**—Kevin was slowly dying. The blood and oxygen flow to his vital organs was so low that his liver, kidneys, and lungs, and heart itself were starting to shut down. Obviously, this condition is life-threatening if not treated immediately. We were told that Kevin's chances of survival were 50/50.

In the meantime, the cardiologist re-



Cindy Foley and her husband Kevin enjoy a new lease on life together after Kevin's heart transplant. (Photo courtesy of Jacksonville District)

ferred us to another specialist to implant a pacemaker and defibrillator to buy some time. That procedure was done last Dec. 18. It was supposed to be an in/out procedure, but Kevin was in intensive care for four days while his cardiologist pursued relentlessly to get him admitted for tests to Shands (a teaching hospital) at the University of Florida in Gainesville.

In February we finally received word from Gainesville that Kevin was accepted for testing and evaluation in February. After more testing and extensive psychological evaluations of both Kevin and me, he was accepted into the transplant program.

### Psychology

This is no easy process. If you smoke, drink, have a history of drug use, and are not willing to change, your chances of receiving a transplant are nil. They are not going to waste the precious gift of life on you.

Also, if they felt that I couldn't handle

taking care of Kevin after the procedure, or wasn't mentally stable enough for what could be a long wait, he wouldn't be accepted.

I explained that I had taken care of Kevin after two heart attacks, emergency triple bypass surgery, and the pacemaker/defibrillator implant, so I was certain I could handle this, too.

Kevin was not allowed to leave the hospital. He was admitted and hooked up to what they called "rocket fuel" intravenous drugs to turn around the deterioration of his vital organs.

We hadn't expected this situation and when Kevin asked if he could just go home for one day on the weekend and finish up a few loose ends, the doctor said "Do you want to die?"

### Negotiations

The notion of a "National Transplant List" and first-come/first-served for organ transplants is simply a myth. While a nationwide list *does* exist, time is of

the essence, especially for heart transplants. Some organs will "keep" for a day or two, but the heart can be out of the donor body for only about four hours before it must be transplanted into the receiving body. It's also the last organ harvested from the donor, because it is required to keep the other vital organs functioning while the doctors remove them for other waiting patients.

Pre-transplant coordinators who work with the doctors negotiate for the organs. With hearts, the patient's physical condition is most important, not to mention their mental attitude.

After the initial scary moments, once Kevin was on those drugs his condition turned around in less than five weeks. The doctors were amazed, especially at the quick reversal of his kidney failure.

### Long day

On April 19, at 8:30 a.m., I received a call at work from Kevin. He said they had a heart for him. I couldn't believe it. I started shaking and crying; they had told us most people wait three to six months, and we had set our minds on the long haul.

The one catch is that you don't know until the heart actually arrives and the surgeon sees it whether or not he will do the surgery. I left work at 9:01 a.m., and really didn't know if they would perform the transplant until 7:30 that evening when the heart finally arrived.

Thankfully, all went well. It was an extremely long day, and the days after, waiting for signs of rejection, were even longer.

Kevin is still their "transplant patient poster child." He has shown no signs of rejection. I figure he must have received a female heart; we're so much easier to deal with.

### Grateful

That's a joke that our friends kid us about, but in reality we just don't know who the heart came from. We sent a thank-you letter through the transplant coordinator to the donor's family, but have heard nothing back.

They told us that about 80 percent of the donor families never write back. However, thanking the family of the person who gave Kevin, me, and our family a new lease on life was important to us.

We are extremely grateful for our new lease on life and Kevin's chance to finally enjoy the retirement he deserves. Life is short; don't take any day for granted. You never know when it could be your last.

### Organ donor

You can sign up to be an organ donor on-line at [www.organdonor.gov](http://www.organdonor.gov). Make sure your family members know your wishes and, most important, also have a living will. It will make everything much easier on your family if something unexpected happens.



# Training is glimpse at Lewis & Clark era

*'With Ocean in View' open to all, prepares Corps people to answer Lewis & Clark questions*

By Denver Beaulieu-Hains  
Headquarters

For those who might wonder why Meriwether Lewis and William Clark set out to explore the Pacific Northwest, or those who want to know why the Lewis and Clark expedition remains important today, the U.S. Army Corps of engineers is sponsoring a Lewis and Clark Training Academy in the Pacific Northwest.

This training academy, "With the Ocean in View," will be held at the Vancouver Water Resource Education Center, Nov. 6-8 in Vancouver, Wash. It is open to anyone who wishes to attend.

**Overview.** "The session will start with an overview of the whole Lewis and Clark experience, then address more regional topics, which focus on their travels within the Columbia River Basin," said Craig Rockwell, Congressional Liaison to the Lewis and Clark Bicentennial Caucus for the U.S. Congress.

Rockwell began planning for the bicentennial event since 1996, when he was the USACE coordinator. "The sessions will be open on a first-come, first-served basis, and are free to the public."

Corps park rangers and others who have responsibilities to meet the needs of bicentennial visitors are encouraged to attend.

**Discovery Box.** The training will include how to use the Discovery Box, a box filled with items related to the expedition, such as a cast of a grizzly bear track, sextant, peace medals, and a tin of bear grease bug repellent.

The training also features the Native American perspective on Lewis and Clark; role players portraying Capt. William Clark and York, the only black per-

son in the expedition; bus tours; and methods of interpreting the Lewis and Clark expedition for park visitors.

"It's imperative to have rangers and natural resources and navigation people take this training because so much of the story is going to be on the river," said Susie Kline, an outdoor recreation planner from Pittsburgh District, and a member of the four-person team that developed the Discovery Box.

Although the academy does not charge tuition for its sessions, personnel stationed outside of the Pacific Northwest must have their travel and per diem approved by their offices.

"It's an uphill struggle," said Ken Wilk, Lewis and Clark Bicentennial Deputy to the National USACE Coordinator. "The ideal is for every Corps employee to know the story but, realistically, if a majority of those with high levels of customer contact take this training, we'd be in good shape."

**Value.** But the goal is to be in better-than-good shape, Wilk added.

"Some personnel might not see the value in this training and spending the funds, he said. "But we are conducting these training sessions to broaden the awareness of the entire Corps mission and our abilities."

Wilk said that the Corps has taken some hits and received some bad publicity in the past, but he sees the bicentennial event as an opportunity to tell the Corps story and look good at the same time.

"With Lewis and Clark coming through, we will be out there in the right light, in the Congressional eye, in the public eye, in the media's eye, and our image can change," said Wilk.

For more information see the website at [www.lewisandclarkwa.org](http://www.lewisandclarkwa.org)



An assortment of items similar to those taken on the Lewis & Clark expedition. (Photo courtesy of the Lewis & Clark Bicentennial Committee)



Bob Dorian (left) demonstrates a sextant, a navigation instrument that Lewis & Clark carried. Steve Allie (right), Director of the Frontier Army Museum, wears the Army dress uniform of the Lewis & Clark era. (Photos courtesy of the Lewis & Clark Bicentennial Committee)

HR Corner

## On-line resumes simplify job search

A one-stop on-line resume center for applicants seeking a job with Department of the Army is fast becoming a reality. Recently, the resume inventories of four Civilian Personnel Operations Centers (CPOCs) based in the U.S. merged. Now applicants for any position serviced by the Northeast, North Central, South Central, or North Central CPOCs need submit only one resume to receive consideration for any vacancy in these regions.

For a few more months, the West Region and the CPOCs and overseas CPOCS will maintain their own resume inventories until they also merge early in 2003.

The one-stop center is just the first phase of the Army streamlining process designed to make it easier for applicants to locate and apply for Army vacancies.

The Army resume builder at [www.cpol.army.mil](http://www.cpol.army.mil) has been redesigned. Applicants will find that using Army's resume builder is the easiest, most reliable mechanism

for preparing and submitting a resume, compared to building a resume with their word processor and saving it to their computer.

By using the interactive resume builder, your resume is more likely to be accepted because you will provide all the information required to determine eligibility and qualifications. Material from existing resumes can easily be cut and pasted into the resume builder.

DA is also working to reduce the different mechanisms currently in place to fill vacant civilian positions. About two years ago, the centralized career referral system for Career Program-18, Engineers and Scientists (Resources and Construction), was eliminated.

On Oct 1, all remaining ACCES (Army Civilian Career Evaluation System) or SKAP (skills, knowledge, abilities and personal characteristics) centralized career referral systems were replaced by local job announcements that can be accessed at [www.cpol.army.mil](http://www.cpol.army.mil).

While jobs are individually announced at most locations (other than those in West Region where vacancies are announced on an open continuous basis), in 2003 DA will begin using an inventory-based recruiting system to fill all vacancies sometime.

Under this process, applicants can submit a resume to be considered for any occupation or location at any time. These resumes will be placed in an inventory and screened when a vacancy occurs.

For most jobs, there will no longer be individual job announcements. By eliminating the announcements, Army will further streamline its processes and issue a list of available candidates much faster. This will be a major cultural change for applicants who are accustomed to applying to specific job vacancies.

We will continue to keep you apprised of these developments, as will your servicing Civilian Personnel Advisory Centers.



# Around the Corps

## New Regulatory Chief

Mark Sudol became the new chief of the Corps' Regulatory Branch in Headquarters after 20 months as chief of Los Angeles District's Regulatory Branch. "My primary responsibility will be policy," he said. "I want to improve consistency across different branches, enhance communication among branches, and improve the public's perception of the Corps."

Sudol has a doctorate in science and engineering from the University of California at Los Angeles. He worked two years in the private sector for two environmental consultancies, and for a year with his own start-up environmental services firm. Since 1991 he has held several posts in the district's Regulatory Branch.

"We have excellent people in regulatory across the country, but because we have difficult jobs, we don't get the recognition we should," Sudol said. "We're working on the sidelines, making the tough decisions, instead of showing people that we're protecting wetlands." He said one of his biggest tasks in the new assignment "will be to show the nation how well we do our job."



Mark Sudol.

## Telework facility

New England District (NED) opened an alternative work arrangement (AWA) facility beside the Western Area Office in Devens, Mass. Employees who signed up for the pilot AWA program reported to work Aug. 12.

The Devens site is 25 miles from NED's headquarters in Concord, Mass. The Office of Human Resources estimates that the 30 employees in the AWA pilot program will save 1,885 miles per week. The longest commute saved is 214 miles a week.

The AWA facility is a former warehouse renovated by NED employees. It has 12 workstations with docking station capability to allow employees to use their laptops, and five workstations with stationary computers. Employees can use their laptops as "soft phones" to receive phone calls as if they were in their own cubicles. All workstations will connect employees to the NED network to access e-mail and the Internet.

Eligible employees and their supervisors agree to a specific work schedule of one or two days at the AWA facility. The agreement is a contract that can be modified if needed.

## Day of Caring

Each year, the turnout for the Day of Caring in Tulsa, Okla., is the largest in the nation. On that day, the annual United Way campaign kicks off with thousands of volunteers donating a day's labor to member agencies in the community.

More than 70 Tulsa District employees volunteered to work at local service agencies. They also led an effort to aid the children of Afghanistan. The Day of Caring coordination team gathered school supplies, toys, sports equipment, clothing, and miscellaneous toiletries to send to Afghanistan. Items were collected through Sept. 11, the date chosen for this year's Day of Caring.

Ahmed Majali of Operations Division mentioned the project to the Islamic Society of Tulsa, and they joined the project. Fifty boxes of donated items were collected. District employee volunteers will pack the boxes, load the trucks, and pay for postage to start the packages on their way to the Afghan children.

## Millennium Challenge 2002

The Corps took part in Millennium Challenge 2002 (MC02), a war-game conducted by the U.S. Joint Forces Command (USJFCOM) to simulate a battlefield in 2007.

MC02 took place at 17 simulation sites and nine live sites across the U.S. It was the largest joint military

experiment and exercise of its kind, with more than 13,500 military and civilian personnel participating. MC02 ran July 24-Aug. 15.

USACE representatives participated in MC02 at USJFCOM Headquarters in Suffolk, Va., and at the National Training Center (NTC) in California. The NTC team deployed with the 82nd Airborne Division and brought a Tele-Communications Equipment, Deployable [TCE(D)] device to tap any engineer resource necessary for a mission.

Early in MC02, events forced the Joint Task Force (JTF) at Suffolk to consider a means to repair an airfield. The forces simulating this event were part of the live forces at the NTC. Among them was the USACE team with the TCE(D). USACE representatives on the JTF staff recommended that the TCE(D) be used to obtain the critical runway assessment.

On July 31, this assessment and a live situation report from the USACE engineers at NTC were successfully transmitted during a video teleconference (VTC) with the JTF Engineer in Suffolk. The JTF Engineer then relayed this information to the JTF staff for a decision.

During the VTC the Assistant Division Commander of the 82nd expressed his pleasure with the TCE(D) and his desire to have that capability in all deployments.



Anne Sudar and her son Karl train on the Potomac River.

## Mother-and-son champs

Before daybreak most mornings, Anne Sudar is on the Potomac River, rowing with her teammates from the Alexandria Community Rowing Masters Team.

All that early rising and training paid off Aug. 17-18 when she and her son, Karl, won gold medals and became national champions in the Mother/Son Double Scull at the Masters National Rowing Regatta. Last year's winners in the event posed an early threat in the 1,000 meter race, but the Sudar duo passed them and finished with a five second lead.

Sudar won medals in three other events — Silver in the women's D single (age group 50 - 55); Silver in the women's A double (with a younger partner); and Bronze in the women's D double.

When she's not on the river, Sudar works as a water resource planner in the Navigation Division at the Institute for Water Resources in Alexandria, Va.

## Real estate partnering

In Mobile, Ala., on June 16-21, members of the Corps' real estate community took part in the 48th Annual International Right of Way Association (IRWA) Education Seminar. IRWA is a professional organization for all right of way professionals and practitioners.

Linda Garvin, Director of Real Estate, signed a Partnering Agreement with the IRWA's International President, Alan Wurtz. USACE and IRWA will work together on joint partnering activities such as training outreach and

opportunities for both agencies.

On Aug. 12, two months after the signing, Real Estate Directorate hosted the first partnering meeting with IRWA. During this meeting, goals and expectations were determined related to training and educational needs.

The first goal for both parties is to develop and streamline training needs for the real estate community and other USACE personnel. The agencies are proposing a regional training program that takes courses to a particular division where surrounding districts and/or divisions meet to learn and share. The first pilot program will be held in Mississippi Valley Division in early 2003.

The partnering efforts of Real Estate Directorate do not stop with the IRWA. Realty Services Division hosted their 2nd Annual Support For Others Partnering Session on Aug. 15. Representatives from several federal agencies and Corps districts attended.

For the first part of the session, Real Estate listened to customers' concerns. During the second part, Real Estate staff developed themes and strategies to address the customers' concerns.

## National Guard Convention

Members of Los Angeles District's Emergency Management Branch took their Rapid Response Vehicle (RRV) to Long Beach, Calif., to support the National Guard Convention's Press Operations Section.

More than 4,500 Guardsmen from around the country attended the event at the Long Beach Convention Center Sept. 6-9. Members of the California State Military Reserve (CSMR) operated the press section from the RRV.

"This was a chance to show off our vehicle and to work on it and the systems," said Ed Andrews, Emergency Manager. "We don't always get a chance like this. The vehicle sets in the base yard and we maintain it, but we seldom get to use all the systems. There were some little things we needed to check out, and the CSMR helped us do that. We know that all our radios work and the batteries stay charged."

"We also learned how to acquire and hook up land lines and electricity," Andrews continued. "We set up communications links and had computers out for them to use. It was a win-win situation for all of us. We got a chance to check our equipment, and they had a chance to work from a mobile news center."



Members of the California State Military Reserve operate a press section in the Ready Response Vehicle.

## Small business subcontracting fair

If Honolulu District's first annual Small and Disadvantaged Business Utilization (SADBU) Subcontracting Opportunities Fair at Fort Shafter, Hawaii, is any indication, this fair is an idea whose time has come.

"The turnout was terrific," said Monica Kaji, the district's Deputy for Small Business. "One way for a small business to start working with the federal government is to become a subcontractor on a federal project. I thought that perhaps some small firms were intimidated by walking into a large company just to meet somebody and promote their capabilities, so this seemed like a nice informal way of bringing people together."

More than 100 people representing 68 businesses attended the Aug. 16 event at district headquarters. Tables with representatives of eight firms that currently have contracts of more than \$500 thousand with the federal government, plus a ninth table with representatives of the U. S. Small Business Administration, were on hand to introduce their firms and talk to subcontractors.



Anne Sudar and her son Karl took first place in the Mother/Son Double Scull event at the Masters Rowing Regatta.



# Minnesota

## Continued from page one

protection in place held the water back. "It was completed just in time, and the protection was critical to protecting Ada," said Bertschi. "The town was very appreciative of the Corps' support."

## Roseau

Around the same time as the first flood in Ada, overland flooding soaked the city of Roseau, Minn., which sits on the river of the same name near the Minnesota-Canadian border. The water broke through the town's existing levees, and around 75 percent of the city flooded. City officials requested that the Corps help mitigate more damage, as the water continued to rise and parts of the city were evacuated.

Of the 17 people who work out of the Grand Forks, N.D., office, seven deployed to Roseau. Tom Stiel, flood engineer from this office, said they arrived Monday afternoon, shortly before the existing levee broke. Shortly thereafter they were asked to provide emergency response.

"By 7 p.m. that night, we had contractors building levees along the railroad tracks and through downtown Roseau," said Stiel. The levees stopped water flows into the south and southwest of the city and allowed for the pumping of standing water behind the levees.

A combined city, county, state, and Corps effort to build dikes, pump water, and fill sandbags progressed throughout the week. The river rose to 23.12 feet on June 13, nearly two feet above the flood of record and seven feet higher than its flood stage. According to the Federal Emergency Management Agency (FEMA), about 95 percent of the structures there had severe water damage.

"We did all we could do in the time we had," said Stiel. "I definitely think we did a decent job, and the community was grateful we were there."

When the water receded, the president declared Roseau and its surrounding communities a natural disaster area. FEMA moved in and asked the Corps to stay and help cleanup. At FEMA's request, the Corps assembled a team to haul and install travel trailers into Roseau for the victims of the flooding whose homes were



The president declared Roseau, Minn., and its surrounding communities a disaster area. (Photo courtesy of St. Paul District)

too damaged for occupancy.

## Warroad

When the trailers began arriving in Roseau, it was time to haul out the shovels again. The next community to request assistance was Warroad, Minn., located at Lake of the Woods on the Canadian-Minnesotan border. Tim Rennecke, Lake of the Woods and Rainy River flood engineer, said the Corps began meeting with city and county officials on June 25.

"Local officials were concerned with rising lake levels," Rennecke said. "They wanted to know what was going to happen and what they should do. Besides flooding, they were worried about wave action."

This large lake, normally at a summer elevation of 1,060.5 feet above sea level, was already at 1,061.8 feet and rising. A harbor in the city was flooding and water was backing up through the city's sewer system.

"The city wanted to retain access for businesses and boat ramps," said Rennecke. "Plus, the Red Lake tribe has a casino and restaurant right on the shoreline. Tourism is big business up there. We tried to come up with a plan that would meet everyone's needs. The first and

most critical issue was to construct a plug for that harbor. As soon as we were able to get a ditch plug in place, the city began pumping."

The second item needed was a 3,900-foot levee along the shoreline to act as a wave break, but in the event of a large rainstorm it might also be needed as a levee.

Since lake flooding is different from river flooding in that the protection needs to stay up longer and rock was expensive and scarce in Warroad, Corps engineers designed a levee made up of three different kinds of material, depending on the protection needed. Where the wave action might be fiercest, they used both geo-cell and jersey barriers. Where flooding might be more of a concern than wave action, they used clay and plastic.

It was the first time St. Paul District tried using geo-cells to fight floods. Geo-cells are a clear plastic grid system filled with dirt. They can be stacked four feet by four feet, and are recyclable for up to six floods.

"They're expensive at first," said Rennecke. "But volunteers provide labor for installation and removal, and they may be used several times. So in the long run, they may be cost effective."

For the jersey barrier portion of the levee, the Minnesota Department of Transportation brought in a combination of concrete and plastic triton barriers that could be filled with water, making them easier to move and carry. Clay covered with plastic was placed behind the jersey barriers for stabilization and to provide a water-tight seal.

The water on Lake of the Woods peaked at 1,062.41 on July 5, but it's still high as this story was written. Rennecke said the district set up a monitoring plan before leaving Warroad to ensure the levee held, and it did.

"We provided flood protection for the town and, at the same time, we were able to keep the streets and businesses open," he said. "I'd have to say it was a great team effort between the city, county, and Corps."

Other areas of Northwestern Minnesota faced flooding as well, and St. Paul District provided technical support to many more counties and cities. The heavy rains filled much of the regions lakes and rivers, and high rivers caused the closing of Minneapolis locks and dams.

# Lab of Year

## Continued from page one

Research focused on the physics of a material's response to blast waves, the structure responding as a system with coupling between the wall structure and the windows, and flying debris. Materials that undergo large elongations before failure (high ductility) can absorb significant amounts of kinetic energy from wall debris. If these materials are attached to the floor slabs of the main structure, they transfer loads directly to the floor slabs. The slabs distribute the load to the building framing system so that the individual building frames are not overloaded.

The ERDC found that high-strength geotextiles or spray-on elastic polymers had the high ductility required to absorb high amounts of kinetic energy. The physics model represented walls and windows as integrated systems. Using the model, engineers abandoned earlier attempts to prevent walls or windows from breaking. Instead, they developed methods to catch debris before it traveled far enough into the building to become a hazard.

For example, methods developed to protect a room from flying glass from shattering windows involved glazing the window with a half-inch layer of laminated polycarbonate glazing, with a plastic interlayer and a cross-shaped tubular steel catch system that prevented the window pane from moving more than a short distance into the room.

Earlier ERDC technology developed for building protection from terrorist attack saved numerous lives on Sept. 11 when the hijacked airliner, traveling at 530 miles per hour, struck the Pentagon. The plane hit a newly renovated section that had been retrofitted with blast-resistant technologies. These protective measures held up the third, fourth, and fifth floors for almost 30 minutes, allowing building occupants to flee. Windows that used



The third generation of the TeleEngineering Communications System has been fielded. (Photo courtesy of ERDC)

ERDC protective measures did not blow out, preventing fire generated by the 36,000 pounds of jet fuel from entering offices, also saving numerous lives.

Following the Sept. 11 attack, ERDC conducted a 30-day study for the Pentagon using the new physics-based modeling. Rebuilding the damaged portion of the Pentagon and all future renovation will use retrofits based on the model's predictions.

New wall retrofits are also transitioning directly to the Pentagon, other U.S. government buildings in the U.S. and overseas, and other critical military facilities. Design concepts are also going to the Corps' Protective Design Center in Omaha District for incorporating into engineering guidelines to protect new or retrofitted buildings against terrorist attacks.

## Management accomplishments

ERDC was also recognized for providing communications technologies throughout the organization to enable its operation as a virtual organization. ERDC consists of seven laboratories at four major geographical sites and many field offices around the country.

In many cases, supervisors and employees are located at different sites, and research is managed and executed by multiple laboratories that are not co-located.

The communications initiative focused on employing technologies such as video teleconferencing, high-speed networking, shared applications, and the Internet to support communication and virtual operations.

Employees at different locations can work together using these technologies, leveraging talent, facilities, and resources from other ERDC sites; redistributing work; and ensuring that communications technologies keep pace with the evolving organization while remaining secure.

## Third generation tele-engineering

Finally, ERDC produced the third generation of the TeleEngineering Communications System, which provides secure, deployable, high-speed data, voice, and video teleconferencing. ERDC deploys them worldwide to provide real-time engineering support to the warfighter from technical experts anywhere in the Corps.

To date, ERDC has deployed 48 TeleEngineering Communications Systems around the world and is assembling and testing 49 additional systems.

"ERDC receives about six percent of Army science and technology funding," said Dr. James Houston, ERDC Director. "To win this top award indicates the amazing work done by our team members."